

ORAL & PHARYNGEAL CANCER

Background

Oral and pharyngeal cancers represent a serious problem in the United States. In 1999, 29,800 cases of oral and pharyngeal cancers were expected to be diagnosed, leading to 8,100 deaths.¹ Oral and pharyngeal cancers occur more frequently than leukemia, Hodgkin's disease, and cancers of the brain, cervix, liver, pancreas, bone, thyroid gland, testes, and stomach. Oral and pharyngeal cancers are the 7th most common cancers found among white males [4th most common among black men] and the 14th most common among U.S. women.²

While oral and pharyngeal cancers represent only three percent of all cancers in the United States, they have one of the lowest five-year survival rates [53%] of any of the major cancer sites, with the rate remaining constant for 30 years.³ These low survival rates may exist because oral and pharyngeal cancers tend to be diagnosed at advanced stages. If these cancers are diagnosed at an early stage, the 5-year survival rate rises to 81%.⁴ In addition to death, these cancers and even their treatment can be disfiguring and lead to speech impairment and an inability to swallow.

Alcohol and tobacco use are the major risk factors for oral cancer, accounting for 75% of all oral cancers.⁵ Increasing consumption of fruits and vegetables has been associated with lower risk.⁶

The examination to detect early stages of oral and pharyngeal cancers should be both tactile and visual. This type of exam is noninvasive and does not hurt the patient. The American Cancer Society recommends oral cancer examinations every three years for individuals over 20 years old and every year for those over 40. Physicians and other health care providers, in addition to dental professionals, should perform this exam as part of a routine physical, since many adults seek medical care more frequently than dental care.

Despite the recommendations from the American Cancer Society and other organizations, only 13% of adults aged 40 years or older reported having had an oral cancer examination in the past year.⁷ A national survey of dentists revealed that while most dentists could identify most of the oral cancer risk factors, 67% did not know that oral cancers are usually diagnosed in late stages.⁸ While 81% examined all patients over 40 years old in the initial appointment, only 12% of dentists provided oral cancer exams for edentulous patients 18 years and older.⁹ In addition, the adult public appears to be poorly informed about signs and symptoms of oral cancer.¹⁰ This lack of information may be due to minimal coverage in the popular press and limited availability of educational materials designed for the public.

An especially troubling aspect of oral and pharyngeal cancers is that there are disparities based on racial and socio-demographic factors. The five-year survival rate is lower among African Americans [34%] than whites [56%];¹¹ adults with less than a high school

education [5%] and those with a high school education [10%] were less likely than those with some college [19%] to have had an oral cancer examination in the last year.¹² While early diagnoses improves the survival rate, only 19% of African Americans had their cancer detected at the earliest stage, compared with 38% of whites.¹³ This may be related to a lack of oral cancer examinations. While 14% of whites aged 40 years and older had an oral cancer exam in the past 12 months, only 7% of African Americans aged 40 years and older had had the examination.¹⁴

Need/Problem in Rhode Island

Assuming an annual oral and pharyngeal cancer incidence rate of 10/100,000 and an annual death rate of 3/100,000,¹⁵ one can conservatively estimate approximately 100 new oral and pharyngeal cancer cases and 30 deaths per year in Rhode Island. In fact, the Rhode Island experience exceeds the national averages for diagnoses and deaths. Between 1987 and 1998, an average of 112 Rhode Islanders were diagnosed with invasive oral cancer annually, with an average of 37 deaths due to oral cancer each year during the same time period.¹⁶ Although the numbers of cases and deaths due to these cancers are relatively small, the resulting morbidity and mortality is not inconsequential.

Dental insurance coverage and routine dental visits intuitively appears to be directly related to the receipt of oral cancer screening services by patients. Although older adults are more likely to develop oral cancer, they are less likely to have dental coverage or obtain dental services in Rhode Island; in 1996, more than 75% of individuals aged 65 and older had no dental care coverage, while only 47.6% in the oldest age group made a preventive visit to the dentist.¹⁷

A 1996 study in Rhode Island found oral cancer screening rates of adults to be less than optimal: 30% of adults ages 18-24, 35% of adults ages 25-59, and 32% of adults ages 60+ reported receiving an oral cancer screening examination in the last year.¹⁸

An aggressive interdisciplinary approach of education and enhanced oral cancer screening services is required in Rhode Island to increase early detection of cancers and ultimately increase the five-year survival rates of oral and pharyngeal cancer patients.

Addressing the Issue in Rhode Island

A combination of education services and treatment services is proposed as one potential solution to this public health issue.

- Education services
 - Public education activity targeting adults re: risk factors, signs/symptoms of disease, oral health consequences, annual visit to the dentist, and examination for early identification of disease.
 - PSAs, media, marketing, hotline
 - Professional education activity targeting primary care health providers [internists, family physicians, obstetricians, and mid-level medical practitioners] re: risk

- factors, signs/symptoms of disease, oral health consequences, examination for early identification of disease, and referral for treatment.
 - Training meetings
 - Professional education activity targeting the practicing dental community [particularly general practice dentists and dental hygienists] re: risk factors, signs/symptoms of disease, oral health consequences, examination for early identification of disease, and referral for treatment.
 - Training meetings
- Treatment services
 - Commitment from practicing dental community to address oral cancer examination as a priority.
 - Commitment from commercial dental insurers to incentivize reimbursement for oral cancer examination services provided adult patients.
 - Commitment from Rhode Island Medicaid program to incentivize reimbursement for oral cancer examination services provided adult patients.

¹ Landis SH et al. Cancer statistics, 1999. *CA Cancer J Clin* 49:8-31, 1999.

² Greenlee RT, et al. Cancer statistics, 2000. *CA Cancer J Clin* 50:7-33, 2000.

³ Swango PA Cancer of the oral cavity and pharynx in the United States: an epidemiologic review. *J Public Health Dent* 56(6):309-318. 1996.

⁴ SEER cancer statistics review, 1973-1996. National Cancer Institute. Bethesda, MD. 1999.

⁵ Wynder E et al. Tobacco and alcohol consumption in relation to the development of multiple primary cancers. *Cancer* 40(4 Suppl): 1872-8. 1977.

⁶ Potter JD et al. Food, nutrition and the prevention of cancer: a global perspective. World Cancer Research Fund/American Institute of Cancer Research. Washington, DC. 1997.

⁷ Centers for Disease Control & Prevention, National Center for Health Statistics. *National Health Interview Survey, 1998*. Unpublished data. Hyattsville, MD. 1998.

⁸ Yellowitz JA et al. A survey of US dentists knowledge and opinions about oral cancer. In press.

⁹ Horowitz AM et al. Dentists' practices and opinions regarding oral cancer prevention and early detection. In press.

¹⁰ Centers for Disease Control & Prevention, National Center for Health Statistics. *National Health Interview Survey, 1990*. Hyattsville, MD. 1990.

¹¹ SEER cancer statistics review, 1973-1996. National Cancer Institute. Bethesda, MD. 1999.

¹² Centers for Disease Control & Prevention, National Center for Health Statistics. *National Health Interview Survey, 1998*. Unpublished data. Hyattsville, MD. 1998.

¹³ SEER cancer statistics review, 1973-1996. National Cancer Institute. Bethesda, MD. 1999.

¹⁴ Oral health, 21-24. *Healthy People 2010: Objectives for Improving Health*. US Department of Health & Human Services. Washington, DC. 2000.

¹⁵ SEER cancer statistics review, 1973-1996. National Cancer Institute. Bethesda, MD. 1999.

¹⁶ Rhode Island Department of Health. *Rhode Island Department of Health Cancer Registry*. Providence RI. 2001.

¹⁷ Kim HH, Hesser JE, and Buechner JS. *Health status, behavioral health risks, health care access, and health care utilization among Rhode Islanders, 1990 and 1996*. Rhode Island Department of Health. Providence, RI. 2000.

¹⁸ Rhode Island Department of Health. *Rhode Island Health Interview Survey, 1996*. Providence, RI. 1996.